

FIG. 1

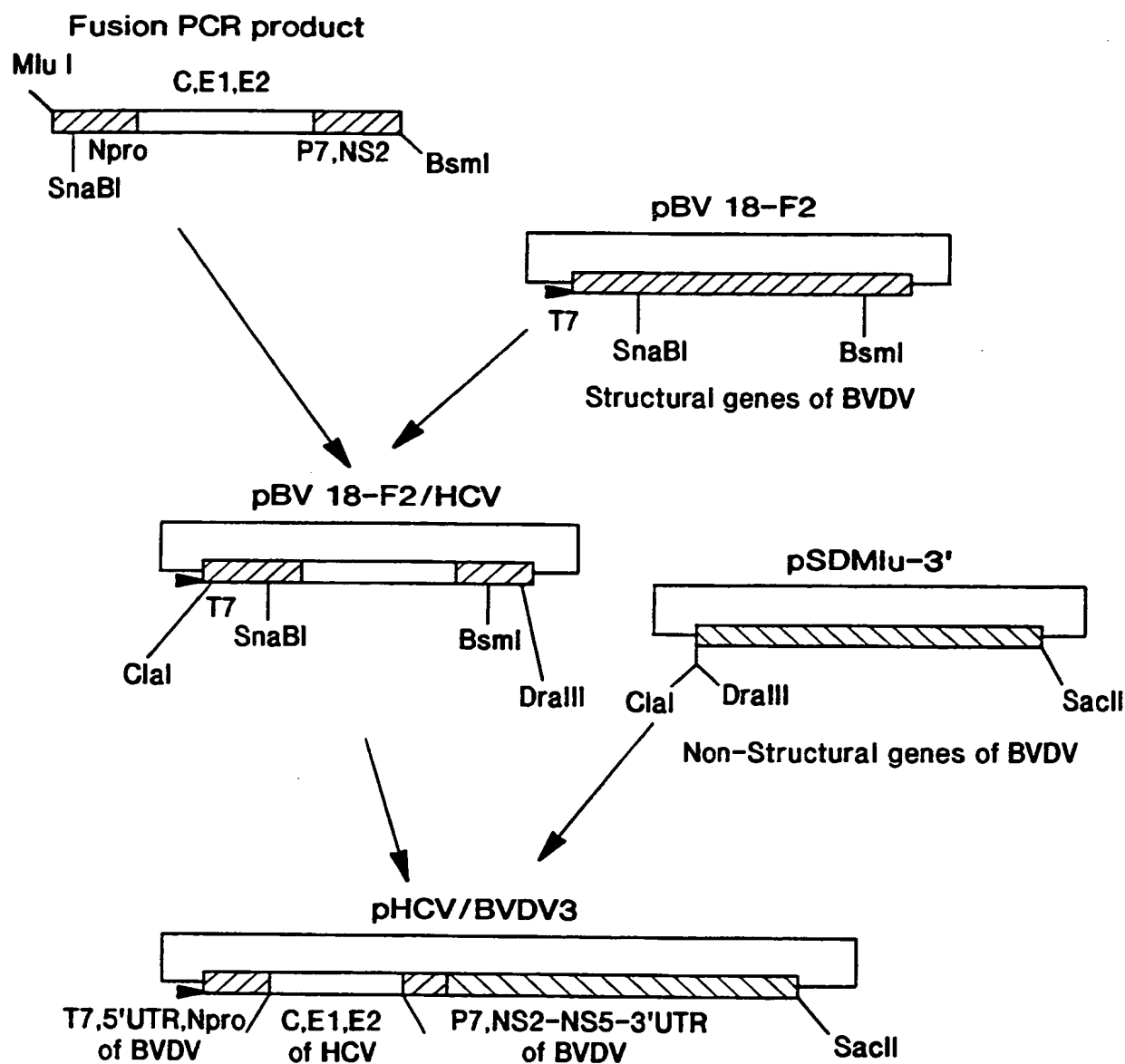


FIG. 2

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GCCAGCCCCC	TGATGGGGGC	GACACTCCAC	CATGAATCAC	TCCCCGTGTA	50
GGAAC TACTG	TCTTCAAGCA	GAAAGGGTCT	AGCCATGGCG	TTAGTATGAG	100
TGTCGTGCAG	CCTCCAGGAC	CCCCCCTCCC	GGGAGAGCCA	TAGTGGTCTG	150
CGGAACCGGT	GAGTACACCG	GAATTGCCAG	GACGACCGGG	TCCCTTCTTG	200
GATAAACCCG	CTCAATGCGT	GGAGATTTCG	GCGTGGCCCC	GCAAGACTGC	250
TAGCCGAGTA	GTGTGTGGTC	GCGAAAGGCC	TTGTGGTACT	GCCGTGATAG	300
GTGCTTGCGA	GTGCCCCGGG	AGGTCTCGTA	GACCGTGCAC	CATGAGCAAG	350
AATCCTAAAC	CTCAAAGAAA	AAOCAAAGCT	AACAACCAAC	GTGCCCCACA	400
GGACGTCAAG	TTCCCCGGTG	GCGGTGAGAT	CGTTGGTGGG	GTTTACTTGT	450
TGCCCCGCAG	GGGCCCCAGA	TTGGGTGTGC	GCGGACGAG	GAAGACTTCC	500
GAGCGGTGCG	AACCTCGAGG	TAGAAGTCAG	CCTATCCCCA	AGGCAAGTGG	550
GCCCCAGGGC	AGGAACCTGG	CTCAGCCCCG	GTACCCCTTG	CCCCCTCTAT	600
GCAATGAGGG	TTGCGGGTGG	GCGGGATGGC	TCCGTGTCTC	CCGTGGCTCT	650
CGCCCTAGCT	GGGGCCCCAC	AGACCCCCCG	CGTAGGTGCG	GCAATTGTGG	700
TAAGGTGATC	GATACCCCTA	CGTGCCGGCT	CGCCGACCTC	ATGGGGTACA	750
TACCGCTCGT	CGGCGCCCCC	CTTGAGAGCG	CTGCCAGGGC	CCTGGCGCAT	800
GGCGTCCGGG	TTCTGGAAGA	CGGCGTGAAC	TATGCAACAG	GGAACTTCC	850
TGGTGTCTCT	TTCTCTATCT	TCCCTCTGGC	CCTGCTCTCT	TGCTGACTG	900
TGCCCCGCTC	AGCCTACCAA	GTGCGCAATT	CCTCGGGGCT	TTACCATGTC	950
ACCAATGATT	GCCCTAACTC	GAGTATGTGT	TACGAGGCGG	CCGATGCCAT	1000
CCTGCACACT	CCGGGGTGIG	TCCCTTGCGT	TGCGGAGGGT	AACGCCCTCG	1050
GGTGTGTGGT	GGCGGTGACC	CCCACGGTGG	CCACCAGGGA	CGGCAAACTC	1100
CCCACAACGC	AGCTTCGACG	TCATATCGAT	CTGCTGTGTC	GGAGCGCCAC	1150
CCTCTGCTCG	GCCCTCTACG	TGGGGGACCT	GTGGGGGTCT	GTCTTCTCTG	1200
TTGGTCAACT	GTTTACCTTC	TCTCCCAGGC	GCCACTGGAC	GACGCAAGAC	1250
TGCAATTGTT	CTATCTATCC	CGGOCATATA	AGGGGTGATC	GCATGGCATG	1300
GGATATGATG	ATGAAC TGGT	CCCCCTACGG	AGGTTGGTGG	GTAGCTCAGC	1350
TGCTCCGGAT	CCCACAAGCC	ATCATGGACA	TGATGCGTGG	TGCTCACTGG	1400
GGAGTCCCTG	CGGGCATAGC	GTATTTCCTC	ATGGTGGGGA	ACTGGGGGAA	1450
GGTCCCTGGT	GTGCTGCTGC	TATTTGCGCG	CGTUGACGGG	GAAACCCACG	1500
TCACCGGGGG	AAATGCGGGC	CGCACCCAGG	CTGGGCTTGT	TGGTCTCCTT	1550
ACACCAGGGG	CCAAGCAGAA	CATCCAAC TG	ATCAACACCA	ACGGCAGTTG	1600
GCACATCAAT	AGCAAGGCCT	TGAATTGCAA	TGAAAGCCTT	AACACGGGCT	1650
GGT TAGCAGG	GCTCTTCTAT	CAACACAAAT	TCAACTCTTC	AGGCTGTGCT	1700
GAGAGGTTGG	CCAGCTGCCG	ACGCCCTTAC	GATTTTGGCC	AGGGCTGGGG	1750
TCCCTATCAGT	TATGCCAACG	GAAGCGGCGT	CGACGAACGC	CCCTACTGCT	1800
GGCACTACCC	TCCAAGACCT	TGTGGCATTG	TGCCCCGAAA	GAGCGTGTGT	1850
GGCCCCGTAT	ATTGCTTCAC	TCCCAGCCCC	GTGGTGGTGG	GAACGACCGA	1900

FIG. 3A

SUBSTITUTE SHEET (RULE 26)

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
CAGGTGCGGC	GCGCTACCT	ACAGCTGGGG	TGCAAATGAT	ACGGATGTCT	1950
TGTCCTTAA	CAACACCAGG	CCACCGCTGG	GCAATTGGTT	CGTTTGTAAC	2000
TGGATGAACT	CAACTGGATT	CACCAAAGTG	TGCGGAGCGC	CCCTTGTGT	2050
CATCGGAGGG	GTGGGCAACA	ACAACCTTGT	CTGCCCCACT	GATTGCTTCC	2100
GCAAACATCC	GGAGGCCACA	TACTCTGGGT	GCGGCTCCGG	TCCCTGGATT	2150
ACACCCAGGT	GCATGGTCCA	CTACCCGTAT	AGGCCTTTGGC	ACTATCCTTG	2200
TACCATCAAT	TACACCATAT	TCAAAGTCAG	GATGTACGTG	GGAGGGGTGG	2250
AGCACAGGCT	GGAGCGGGCC	TGCAACTGGA	CGCGGGGCGA	ACGCTGTGAT	2300
CTGGAAGACA	GGGACAGGTC	CGAGCTCAGC	CGTTGTCTGC	TGTCCACCAC	2350
ACAGTGGCAG	GTCTTTCCGT	GTTCTTTTAC	GACCCCTGCCA	GCCTTGTCCA	2400
CCGGCCCTCAT	CCACCTCCAC	CAGAACATTG	TGGACGTGCA	GTACTTGTAC	2450
GGGGTAGGGT	CAAGCATGGC	GTCTTGGGCC	ATTAAAGTGGG	AGTACGTCTG	2500
TCTCCTGTTC	CTTCTGCTTG	CAGACCGCGG	CGTCTGCTCC	TGCTGTGTGA	2550
TGATGTTACT	CATATCCCAA	GCGGAGGCGG	CTTTGGAGAA	CCTCGTAATA	2600
CTCAATGCAG	CATCCCTGGC	CGGGACGCCAC	GGTCTTGTGT	CCTTCCCTGT	2650
GTCTTCTGTC	TTTGGGTGGT	ATCTGAAGGG	TAGGTGGGTG	CCCGGAGCGG	2700
TCTACGCCCT	CTACGGGATG	TGGCCTCTCC	TCCCTGCTCT	GCTGGCGTTG	2750
CCTCAGCGGG	CATACGCACT	GGACACGGAG	GTTGGCCGGT	CGTGTGGCGG	2800
CGTTGTCTTT	GTCCGGTTAA	TGGCGCTGAC	TCTGTCCGCA	TATTACAAGC	2850
GCTATATCAG	CTGGTGCATG	TGGTGGCTTC	AGTATTTTCT	GACCAGAGTA	2900
GAAGCGCAAC	TGCACGTGTG	GGTTCCCCCC	CTCAACGTCC	GGGGGGGGCG	2950
CGATGCCGTC	ATCTTACTCA	TGTGTGTAGT	ACACCCGACC	CTGGTATTTG	3000
ACATCACCAA	ACTACTCCTG	GCCATCTTCC	GACCCCTTTG	GATTCTTCAA	3050
GCCAGTTTGC	TTAAAGTCCC	CTACTTGGTG	CGCGTTCAAG	GCCTTCTCCG	3100
GATCTGCCCG	CTAGCGCGGA	AGATAGCCCG	AGGTCATTAC	GTGCAAATGG	3150
CCATCATCAA	GTTAGGGGGG	CTTACTGGCA	CCATATGTGA	TAACCATCTC	3200
ACCCCTCTTC	GAGACTGGGC	GCACAACGGC	CTGGGAGATC	TGGCCGTGGC	3250
TGTGGAACCA	GTGTCTTTCT	CCCGAATGGA	GACCAAGCTC	ATCAGTGGG	3300
GGGCAGATAC	CGCCGCGTGC	GGTGACATCA	TCAACGGCTT	GCCGTCCTCT	3350
GCCCGTAGGG	GCCAGGAGAT	ACTGCTTGGG	CCAGCCGACG	GAATGGTCTC	3400
CAAGGGGTGG	AGGTTGCTGG	CGCCCATCAC	GGCGTACGCC	CAGCAGACGA	3450
GAGGCCTCCT	AGGGTGTATA	ATCACCAGCC	TGACTGGCCG	GGACAAAAC	3500
CAAGTGGAGG	GTGAGGTCCA	GATCGTGTCA	ACTGCTACCC	AAACCTTCTT	3550
GGCAACGTGC	ATCAATGGGG	TATGCTGGAC	TGTCTACCCAC	GGGGCCGGAA	3600
CGAGGACCAT	CGCATCACCC	AAGGGTCCCT	TCATCCAGAT	GTATACCAAT	3650
GTGGACCAAG	ACCTTGTGGG	CTGGCCCGCT	CCTCAAGGTT	CCCGCTCATT	3700
GACACCCCTGT	ACCTGCGGCT	CCTCGGACCT	TTACCTGGTC	ACGAGGCACG	3750
CCGATGTCAT	TCCCGTGCGC	CGCGGAGGTG	ATAGCAGGGG	TAGCCTGCTT	3800

FIG. 3B

SUBSTITUTE SHEET (RULE 26)

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TCGCCCCGGC	CCATTTCCTA	CTTGAAAGGC	TCCTCGGGGG	GTCCGCTGTT	3850
GTGCCCCGGC	GGACACGGCG	TGGGCTATT	CAGGGCGGG	GTGTGCACCC	3900
GTGGAGTGGC	TAAAGCGGTG	GACTTTATCC	CTGTGGAGAA	CCTAGGGACA	3950
ACCATGAGAT	CCCCGGTGT	CAOGGACAAC	TCCTCTCCAC	CAGCAGTGCC	4000
CCAGAGCTTC	CAGGTGGGCC	ACCTGCATGC	TCCACCGGC	AGCGGTAGA	4050
GCACCAAGGT	CCGGCTGGC	TACGCAGGCC	AGGGCTACAA	GGTGTGGTG	4100
CTCAACCCCT	CTGTGCTGC	AAOGCTGGGC	TTTGGTGCTT	ACATGTCCAA	4150
GGCCCATGGG	GTTGATCCTA	ATATCAGGAC	CGGGGTGAGA	ACAATTACCA	4200
CTGGCAGGCC	CATCAGTAC	TCCACCTAAG	GCAAGTTCT	TGCGAGGGC	4250
GGGTGCTCAG	GAGGTGCTTA	TGACATAATA	ATTTGTGACG	AGTGCCACTC	4300
CACGGATGCC	ACATCCATCT	TGGGCATOGG	CATGTCTCT	GACCAAGCAG	4350
AGACTGCGGG	GGCGAGACTG	GTGTGCTCG	CCACTGCTAC	CCCTCCGGGC	4400
TCCGTCACTG	TGTCCCATCC	TAACATCGAG	GAGGTGCTC	TGTCCACCAC	4450
CGGAGAGATC	CCCTTTTACG	GCAAGGCTAT	CCCCCTCGAG	GTGATCAAGG	4500
GGGAAGACA	TCTCATCTTC	TGCCACTCAA	AGAAGAAGTG	CGACGAGCTC	4550
GGCGCGAAGC	TGGTCCGATT	GGGCATCAAT	GGCGTGGCCT	ACTACCGGG	4600
TCTTGACGTG	TCTGTTCATCC	CGACCAGCGG	CGATGTGTGTC	GTGCTGTGCA	4650
CCGATGCTCT	CATGACTGGC	TTTACCGGGC	ACTTCGACTC	TGTGATAGAC	4700
TGCAACACGT	GTGTCACTCA	GACAGTCGAT	TTAGCCTTG	ACCCCTACCTT	4750
TACCATTGAG	ACAACCACGC	TCCCCCAGGA	TGCTGTCTCC	AGGACTCAAC	4800
GGCGGGGCAG	GACTGGCAGG	GGGAAGCCAG	GCATCTATAG	ATTTGTGGCA	4850
CCGGGGGAGC	GGCCCTCCGG	CATGTTCGAC	TGCTCGTCC	TCTGTGAGTG	4900
CTATGACGGC	GGCTGTGCTT	GGTATGAGCT	CAOGCCCGCC	GAGACTACAG	4950
TTAGGCTACG	AGCGTACATG	AACACCCCGG	GGCTTCCCGT	GTGCCAGGAC	5000
CATCTTGAAT	TTTGGGAGGG	CGTCTTTACG	GGCTCACTC	ATATAGATGC	5050
CCACTTTTTTA	TCCCAGACAA	AGCAGAGTGG	GGAGAACTTT	CCTTACCTGG	5100
TAGCGTACCA	AGCCACCGTG	TGCGCTAGGG	CTCAAGCCOC	TCCCCCATCG	5150
TGGGACCAGA	TGTGGAAGTG	TTTGATCCGC	CTTAAACCCA	CCCTCCATGG	5200
GCCAACACCC	CTGCTATACA	GACTGGGGGC	TGTTTCAGAAT	GAAGTCAACC	5250
TGACGCACCC	AATCACCAAA	TACATCATGA	CATGCATGTC	GGCGGACCTG	5300
GAGGTGCTCA	CGAGCACCTG	GGTGCTCGTT	GGCGGGTCC	TGGCTGCTCT	5350
GGCGCGTAT	TGCTGTGCAA	CAGGCTGGGT	GGTCATAGTG	GGCAGGATCG	5400
TCTTGTCGGG	GAAGCCGGCA	ATTATACCTG	ACAGGGAGGT	TCTCTACCAAG	5450
GAGTTCGATG	AGATGGAAGA	GTGCTCTCAG	CACTTACCGT	ACATCGAGCA	5500
AGGGATGATG	CTCGCTGAGC	AGTTCAGCA	GAAGGCCCTC	GGCTCCTGCT	5550
AGACCGGCTC	CCGCCATGCA	GAGGTATATCA	CCCTGCTGT	CCAGACCAAC	5600
TGGCAGAAAC	TGGAGGTCTT	TTGGGCGAAG	CACATGTGGA	ATTTTCATCAG	5650
TGGGATACAA	TACTTGCCGG	GCCTGTCAAC	GCTGCCTGGT	AACCCCGCCA	5700

FIG. 3C
SUBSTITUTE SHEET (RULE26)

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TIGCTTCATT	GATGGCTTTT	ACAGCTGCCC	TCACCAGCCC	ACTAACCCT	5750
GGCCAAADCC	TCTCTTCAA	CATATTGGGG	GGGTGGGTGG	CTGCCCAGCT	5800
CGCCGCCCC	GGTGCCGCTA	CTGCCCTTGT	GGGTGCTGGC	CTAGCTGGCG	5850
CCGCCATCGG	CAGCGTTGGA	CTGGGGAAGG	TCTTCGTGGA	CATTCTTGCA	5900
GGGTATGGCG	CGGGCGTGGC	GGGAGCTCTT	GTAGCATTCA	AGATCATGAG	5950
CGGTGAGGTC	CCCTCCACGG	AGGACCTGGT	CAATCTGCTG	CCCGCCATCC	6000
TCTCGCCTGG	AGCCTTGTA	GTCGGTGTGG	TCTCGGCAGC	AATACTGCGC	6050
CGGCAGGTTG	GCCCGGGCGA	GGGGGCAGTG	CAATGGATGA	ACCGGCTAAT	6100
AGCCTTCGCC	TCCCGGGGGA	ACCATGTTTC	CCCCAGGCAC	TACGTGCGGG	6150
AGAGCGATGC	AGCCGCCCCG	GTCAC TGCCA	TACTCAGCAG	CCTCACTGTA	6200
ACCCAGCTCC	TGAGGCGACT	GCATCAGTGG	ATAAGCTCGG	AGTGTACCCAC	6250
TCCATGCTCC	GGTTCCTGGC	TAAGGGACAT	CTGGGACTGG	ATATGCGAGG	6300
TGCTGAGCGA	CTTTAAGACC	TGGCTGAAAG	CCAAGCTCAT	GCCACAACTG	6350
CCTGGGATTC	CCTTTGTGTC	CTGCCAGCGC	GGGTATAGGG	GGGTCTGGCG	6400
AGGAGACGGC	ATTATGCACA	CTCGCTGCCA	CTGTGGAGCT	GAGATCACTG	6900
GACATGTCAA	AAACGGGACG	ATGAGGATCG	TGGTTCCTAG	GACCTGCAGG	6950
AACATGTGGA	GTGGGACGTT	CCCCATTAAAC	GCCTACACCA	CGGGCCCCCTG	6550
TACTCCCCCTT	CCTGCGCCGA	ACTATAAGTT	CGCGCTGTGG	AGGGTGTCTG	6600
CAGAGGAATA	CGTGGAGATA	AGGCGGGTGG	GGGACTTCCA	CTACGTATCG	6650
GGTATGACTA	CTGACAATCT	TAAATGCCCC	TGCCAGATCC	CATCGCCCCGA	6700
ATTTTTTACA	GAATTGGACG	GGGTGCGCCT	ACACAGGTTT	GCGCCCCCTT	6750
GCAAGCCCCIT	GCTGCGGGAG	GAGGTATCAT	TCAGAGTAGG	ACTCCACGAG	6800
TACCCGGTGG	GGTCGCAATT	ACCTTGCGAG	CCCGAACCGG	ACGTAGCGGT	6850
GTGACGTCC	ATGCTCACTG	ATCCCTCCCA	TATAACAGCA	GAGGCGGGCG	6900
GGAGAAGGTT	GGCGAGAGGG	TCACCCCCCTT	CTATGGCCAG	CTCCTCGGCT	6950
AGCCAGCTGT	CCGCTCCATC	TCTCAAGGCA	ACTTGCAACG	CCAACCATGA	7000
CTCCCCTGAC	GCCGAGCTCA	TAGAGGCTAA	CCTCCTGTGG	AGGCAGGAGA	7050
TGGGCGGCAA	CATCACCAGG	GTGAGTTCAG	AGAACAAGT	GGTGATTCTG	7100
GACTCCTTCG	ATCCGCTTGT	GCCAGAGGAG	GATGAGCGGG	AGGTCTCGGT	7150
ACCTGCAGAA	ATTCTGCGGA	AGTCTCGGAG	ATTGCGCCGG	GCCCTGCCCC	7200
TCTGGGCGCG	GCCGGACTAC	AACCCCCCGC	TAGTAGAGAC	GTGGAAAAAG	7250
CCTGACTACG	AACCACTGT	GGTCCATGGC	TGCCCCGTAC	CACTCCACG	7300
GTCCCCCTCT	GTGCCCTCCG	CTCGGAAAAA	GCGTACGGTG	GTCTTCACCG	7350
AATCAACCCCT	ATCTACTGCC	TGCGCGAGC	TGCCACCAA	AAGTTTGTGC	7400
AGCTCCTCAA	CTTCCGGCAT	TACGGGCGAC	AATACGACAA	CATCCTCTGA	7450
GCCCCCCCCCT	TCTGGCTGCC	CCCCCGACTC	CGAOGTTGAG	TCTTATTCTT	7500
CCATGCCCCC	CCTGGAGGGG	GAGCCTGGGG	ATCCCGATCT	CAGCGACGGG	7550
TCATGGTCCA	CGGTGAGTAG	TGGGGCCGAC	ACGGAAGATG	TCGTGTGCTG	7600

FIG. 3D

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
CTCAATGICT	TATTCCTGGA	CAGGCGCACT	CGTCACCCCG	TGCGCTGCGG	7650
AAGAACA AAA	ACTGCCCATC	AACGCACTGA	GCAACTCGTT	GCTACGCCAT	7700
CACAATCTGG	TGTATTCCAC	CACTTCAAGC	AGTGCTTGCC	AAAGGCAGAA	7750
GAAAGTCACA	TTTGACAGAC	TGCAAGTTCT	GGACAGCCAT	TACCAGGACG	7800
TGCTCAAGGA	GGTCAAAGCA	GCGGCGTCAA	AAGTGAAGGC	TAACTTGCTA	7850
TCCGTAGAGG	AAGCTTGCG	CCTGACGCCC	CCACATTGAG	CCAAATCCAA	7900
GTTTGCGCTAT	GGGGCAAAG	ACGTCCGTTG	CCATCCGAGA	AAGGCGGTAG	7950
CCCACATCAA	CTCCGTGTGG	AAAGAOCCTC	TGGAAGACAG	TGTAACACCA	8000
ATAGACACTA	CCATCATGGC	CAAGAACGAG	GTTTTCTGCG	TTCAGCCTGA	8050
GAAGGGGGGT	CGTAAGCCAG	CTCGTCTCAT	CGTGTTCCCC	GACCTGGGCG	8100
TGCGCGTGTG	CGAGAAGATG	GCCCTGTACG	ACGTGGTTAG	CAAGCTCCCC	8150
CTGGCCGTGA	TGGGAAGCTC	CTACGGATTG	CAATACTCAC	CAGGACAGCG	8200
GGTTGAATTG	CTCGTGCAAG	CGTGGAAGTC	CAAGAAGACC	CCGATGGGGT	8250
TCTCGTATGA	TACCCGCTGT	TTTGACTCCA	CAGTCACTGA	GAGCGACATC	8300
CGTACGGAGG	AGGCAATTGA	CCAATGTTGT	GACCTGGACC	CCCAAGCCCC	8350
CGTGGCCATC	AAGTCCCTCA	CTGAGAGGCT	TTATGTTGGG	GGCCCTCTTA	8400
CCAATTCAAG	GGGGGAAAAC	TGCGGCTACC	GCAGGTGCGG	CGCGAGCGGC	8450
GTA CTGACAA	CTAGCTGTGG	TAACACCCCTC	ACTTGCTACA	TCAAGGCCCG	8500
GGCAGCCTGT	CGAGCCGCAG	GGCTCCAGGA	CTGCACCATG	CTCGTGTGTG	8550
GCGACGACTT	AGTCGTTATC	TGTGAAAGTG	CGGGGGTCCA	GGAGGACGCG	8600
GCGAGCCTGA	GAGCCTTCAC	GGAGGCTATG	ACCAGGTA CT	CCGCCCCCCC	8650
CGGGGACCCC	CCACAACCAG	AATACGACTT	GGAGCTTATA	ACATCATGCT	8700
CCTCCAACGT	GTCAGTCGCC	CACGACGGCG	CTGGAAAGAG	GGTCTACTAC	8750
CTTACCCGTG	ACCCTACAAC	CCCCCTCGCG	AGAGCCGCGT	GGGAGACAGC	8800
AAGACACACT	CCAGTCAATT	CCTGGCTAGG	CAACATAATC	ATGTTTGCCC	8850
CCACACTGTG	GGCGAGGATG	ATACTGATGA	CCCATTTCTT	TAGCGTCCCTC	8900
ATAGCCAGGG	ATCAGCTTGA	ACAGGCTCTT	AACTGTGAGA	TCTACGGAGC	8950
CTGCTACTCC	ATAGAACCAC	TGGATCTACC	TCCAATCATT	CAAAGACTCC	9000
ATGGCCTCAG	CGCATTTTCA	CTCCACAGTT	ACTCTCCAGG	TGAAATCAAT	9050
AGGGTGGCCG	CATGCTCAG	AAAAC TTGGG	GTCGCCCCCT	TGCGAGCTTG	9100
GAGACACCGG	GCCCCGAGCG	TCCGCGCTAG	GCTTCTGTCC	AGAGGAGGCA	9150
GGGCTGCCAT	ATGTGGCAAG	TACCTCTTCA	ACTGGGCAGT	AAGAACA AAG	9200
CTCAA ACTCA	CTCCAATAGC	GGCCGCTGGC	CGGCTGGACT	TGTCCGGTTG	9250
GTTCAAGGCT	GGCTACAGCG	GGGGAGACAT	TTATCACAGC	GTGTCTCATG	9300
CCCGGCCCCG	CTGGTTCTGG	TTTTGCTTAC	TCTGTCTGCG	TGCAGGGGTA	9350
GGCATCTACC	TCTTCCCCAA	CCGATGAAGG	TTGGGGTAAA	CACTCCGGCC	9400
TCTTAAGCCA	TTTCTGTGTT	TTTTTTTTTT	TTTTTTTTTT	TTTTTCTTTT	9450
TTTTTTTCTT	TCCTTCTCTT	CTTTTTTTCC	TTTCTTTTTC	CCTTCTTTAA	9500

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TGGTGGCTCC	ATCTTAGCCC	TAGTCACGGC	TAGCTGTGAA	AGGTCCGIGA	9550
GCCGCATGAC	TGCAGAGAGT	GCTGATACTG	GCTCTCTGTC	AGATCATGT	9599

FIG. 3F

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
MSINPKPQRK	TKRNINRRPQ	DVKFPGGGQI	VGGVYLLPRR	GPRLGVRATR	50
KTSESRQPRG	RRQPIPKARR	PEGRTWAQPG	YFWPLYGNEG	CGWAGWLLSP	100
RGSRPSWGPT	DPRRRSRNLC	KVIDTILTOGF	ADLMGYIPLV	GAPLGGAARA	150
LAHGVRVLED	GVNYATGNLP	GCSFSIFLLA	LLSCLTVPAS	AYQVRNSSGL	200
YHVINDCPNS	SIVYEAADAI	LHTPGCVPCV	REGNASROW	AVTPTVATRD	250
GKLPITQLRR	HIDLLVGSAT	LCSALYVGD	CGSVFLVGQL	FTFSPRRHWT	300
TQDONCSTYP	GHITGHRMAW	IMMNWSPTA	ALVVAQLLRI	PQAIMDMTAG	350
AHWGVLGIA	YFSMVGWAK	VLVLLLFAG	VDAETHVIGG	NAGRTTAGLV	400
GLLTPGAKQN	IQLININGSW	HINSTALNCH	ESLNTGWLAG	LFYQHKFNSS	450
GCPERLASCR	RLTDFAGWG	PISYANGSGL	DERPYCWHYP	PRPGTVPKAK	500
SVCGPVYCFT	PSPVAVGTID	RSGAPTYSWG	ANDIDVFLN	NIRPPLGNWF	550
GCTWMNSTGF	TKVCGAPPCV	IGGVGNITLL	CPIDCFRKHP	EATYSRCGSG	600
PWITPRCVD	YPYRLWHYPC	TINYTIFKVR	MYVGGVEHRL	EAACNWTIRGE	650
RCDLEDRLRS	ELSPLLLSTT	QWQVLPCSFT	TLPALSTGLI	HLHONTVDVQ	700
YLYGVGSSIA	SWAIKWEYV	LLFLLLLADAR	VCSCIAMMLL	ISQAEAALEN	750
LVIINAASLA	GTHGLVSFLV	FFCFAWYLKG	RWVPGAVYAL	YGMWPLLLLL	800
LALPQRAYAL	DTEVAASCGG	VVLVGLMALT	LSPYKRYTIS	WCMWNLQYFL	850
TRVEAQLHW	VPPLNVRGGR	DAVILLMCVV	HPTLVFDITK	LLAIFGPLW	900
ILQASLLKVP	YFVRVQGLLR	ICALARKIAG	GHYVQMAITK	LGALTGTIVY	950
NHLTPLRLWA	HNGRLDLAVA	VEPVVFSRME	TKLITWGADT	AACGDIINGL	1000
PVSARRQGEI	LLGPADGMVS	KGRLLAPIT	AYAQQTRGLL	GCIITSLTGR	1050
DKNQVEGEVQ	IVSTATQTFL	ATCINGVCWT	VYHGAGIRTI	ASPKGPVIQM	1100
YTINVDQDLVG	WPAPQGSRL	TPCTCGSSDL	YLVTIRHADVI	PVRRRGDSRG	1150
SLLSRPRISY	LKGSSGGPLL	CPAGHAVGLF	RAAVCTRGA	KAVDFIPVEN	1200
LGTIMRSPVF	TDNSSPPAVP	QSFQVAHLHA	PTGSGKSTKV	PAAYAAQGYK	1250
VLVLNPSVAA	TLGFGAYMSK	AHGVDENIRT	GVRTTTTGSP	ITYSTYGFKL	1300
ADGGCSGGAY	DIICDECHS	TDATSILGIG	TVLDQAETAG	ARLWLATAT	1350
PPGSVIVSHP	NIEEVALSTT	GEIPFYGKAI	PLEVIKGRH	LIFCHSKKRC	1400
DELAACKLVAL	GIDAVAYYRG	LIVSVIPTSG	DVVVSTIDAL	MIGFTGDFDS	1450
VIDONICVTQ	TVDFSLDPTF	TIETTTLPQD	AVSRQRRGR	TGRGKPGIYR	1500
FVAPGERPSG	MFDSSVLCEC	YDAGCAWYEL	TPAETTVRLR	AYMNTPLPV	1550
CQDHLEFWEG	VFTGLTHIDA	HFLSQTKQSG	ENFPYLVAYQ	ATVCARAQAP	1600
PPSWDQMWKC	LIRLKPTLHG	PTPLLYRLGA	VQNEVTLTHP	ITKYIMTOMS	1650
ADLEVVTSTW	VLVGGVLAAL	AAYCLSTGCV	VIVGRIVLSG	KPAIIPDREV	1700
LYQEFDEMEE	CSQHLPYIEQ	GMLAEQFKQ	KALGLLQIAS	RHAEVITPAV	1750
QINWQKLEVF	WAKHMANFIS	GIQYLAGLST	LPGNPAIASL	MAFTAAVTSP	1800
LTTGQITLLFN	ILGGWAAQL	AAPGAATAFV	GAGLAGAAIG	SVGLGKVLVD	1850
ILAGYGAGVA	GALVAFKIMS	GEVPSTEDLV	NLLPAILSPG	ALVVGWCAA	1900

FIG. 3G
SUBSTITUTE SHEET (RULE26)

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
ILRRHVGPGE	GAVQWMNRLI	AFASRGNHVS	PIHYVPESDA	AARVTAILSS	1950
LTVITQLLRRL	HQWISSECTT	PCSGSWLRDI	WDWICEVLSD	FKTWLKAKLM	2000
PQLFGIPFVS	CQRGYRGVWR	GDGIMHIRCH	CGAETIGHVK	NGIMRIVGPR	2050
TCRNWWSGTF	PINAYTTGPC	TPLPAPNYKF	ALWRVSAEEY	VEIRRVGDFH	2100
YVSGMTIDNL	KCPQIPSPPE	FFTELDGVRL	HRFAPPCKPL	LREEVSFRVG	2150
LHEYPVGSQ	PCEPEPDVAV	LTSMLTDPHS	ITAEAAAGRRL	ARGSPPSMAS	2200
SSASQLSAPS	LKATCTANHD	SPDAELTEAN	LLWRQEMGGN	ITRVESENKV	2250
VILDSFDPLV	AEEDEREVS	PAEILRKSRR	FARALPWAR	PDYNPPLVET	2300
WKKPDYEPPV	VHGCPLPPPR	SPVPPPPRKK	RIVVLTESTL	STALAEATK	2350
SFGSSSTSGI	TGINTTTSSE	PAPSGCPPDS	DVESYSSMPP	LEGEPCDPDL	2400
SDGSWSTVSS	GADTEDVCC	SMSYSWIGAL	VTPCAAEEQK	LPINALSNSL	2450
LRHHNLVYST	TSRSACQRQK	KVIFDRLQVL	DSHYQDVLKE	VKAAASKVKA	2500
NLLSVEEACS	LTPPHSAKSK	FGYGAKIVRC	HARKAVAHIN	SVWKILLED	2550
VTPIDTTIMA	KNEVFVCQPE	KGGKPARLI	VFPDLGVRVC	EKMALYDWS	2600
KLPLAVMGSS	YGFQYSPQOR	VEFLVQAWKS	KKTFMGFSYD	TRCFDSTVTE	2650
SDIRTEEATY	QCCDLDPQAR	VAIKSLTERL	YVGGLINSR	GENCGYRRCR	2700
ASGVLTTSCG	NILTCYIKAR	AACRAAGLQD	CTMLVCGDDL	VVICESAGVQ	2750
EDAASLRAFT	EAMTRYSAAP	GDPPQPEYDL	ELITSCSSNV	SVAHDGAGKR	2800
VYYLTRDPTT	PLARAAWETA	RHTPVNSWLG	NIIMFAPTLW	ARMILMIHFF	2850
SVLIARDQLE	QALNCETYGA	CYSIEPLDLP	PIIQRLHGLS	AFSLHSYSPG	2900
ETNRVAACLR	KLGVPPPLRAW	RHRARSVRAR	LLSRGGRAAI	CGKYLEFNWAV	2950
RTKLKLTPIA	AAGRDLDSGW	FTAGYSGGDI	YHSVSHARPR	WFWFCLLLLA	3000
AGVGTYLLFN	R				3011

FIG. 3H

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GCCAGCCCCC	TGATGGGGGC	GACACTCCAC	CATGAATCAC	TCCCCGTGTA	50
GGAACACTG	TCTTCACGA	GAAAGCGTCT	AGCCATGGCG	TTAGTATGAG	100
TGTGCTGCAG	CCTCCAGGAC	CCCCCCTCCC	GGGAGAGCCA	TAGTGGTCTG	150
CGGAACCGGT	GAGTACACCG	GAATTGCCAG	GACGACCGGG	TCCITTTCTTG	200
GATCAACCCG	CTCAATGCCT	GGAGATTGCG	GCGTGCCCCC	GCGAGACTGC	250
TAGCCGAGTA	GTGTTGGGTC	GCGAAAGGCC	TTGTGGTACT	GCCGTGATAGG	300
GTGCTTGCGA	GTGCCCCGGG	AGGTCTCGTA	GACCGTGCAC	CATGAGCACG	350
AATCCTAAAC	CTCAAAGAAA	AACCAAACGT	AACACCAACC	GCCGCCACAA	400
GGACGTCAAG	TTCCCGGGCG	GTGGTCAGAT	CGTTGGTGGG	GTTTACCTGT	450
TGCCGCGCAG	GGGCCCCAGG	TTGGGTGTGC	GCGCGACTAG	GAAGGCTTCC	500
GACCGGTCCG	AACCTCGTGG	AAGGCGACAA	CCTATCCCAA	AGGCTCGCCG	550
ACCCGAGGGC	AGGGCCTGGG	CTCAGCCCCG	GTACCCCTTG	CCCTCTATG	600
GCAATGAGGG	CCTGGGGTGG	GCAGGATGGC	TCCGTGTCAC	CCGCGGCTCC	650
CGGCCTAGTT	GGGGCCCCAC	GGACCCCCCG	CGTAGGTCCG	GTAACCTGGG	700
TAAGGTCATC	GATACCTTAA	CATGCGGCTT	CGCCGATCTC	ATGGGGTACA	750
TTCCGCTCGT	CGGCGCCCCC	CTAGGGGGCG	CTGCCAGGGC	CTTGGCACAC	800
GGTGTCCGGG	TTCTGGAGGA	CGGCGTGAAC	TATGCAACAG	GGAACCTGCC	850
CGGTGTCTCT	TTCTCTATCT	TCCCTCTTGG	TCTGCTGTCC	TGTTTGACCA	900
TCCAGCTTC	CGCTTATGAA	GTGCGCAACG	TGTCCGGGAT	ATACCATGTC	950
ACGAACGACT	GCTCCAACCT	AAGCATTTGT	TATGAGGCAG	CGGACGTGAT	1000
CATGCATACT	CCCCGGTGGG	TGCCCCGTGT	TCAGGAGGGT	AACAGCTCCC	1050
GTGCTGGGT	AGCGCTCACT	CCCACGCTCG	CGGCCAGGAA	TGCCAGCGTC	1100
CCCACTACGA	CAATACGACG	CCACGTCGAC	TTGCTCGTTG	GGACGGCTGC	1150
TTTCTGCTCC	GCTATGTACG	TGGGGGATCT	CTGCCGATCT	ATTTTCCCTCG	1200
TCTCCAGCT	GTTACCTTTC	TGCCCCGCC	GGCATGAGAC	AGTGCAGGAC	1250
TGCAACTGCT	CAATCTATCC	CGGCCATGTA	TCAGGTCAAC	GCATGGCTTG	1300
GGATATGATG	ATGAACTGGT	CACCTACAAC	AGCCCTAGTG	GTGTCCGAGT	1350
TGCTCCGGAT	CCCACAAGCT	GTGCTGGACA	TGGTGGCGGG	GGCCCACTGG	1400
GGAGTCCCTG	CGGGCCTTGC	CTACTATTCC	ATGGTAGGGA	ACTGGGCTAA	1450
GGTTCTGATT	GTGGCGCTAC	TCTTTGCCCG	CGTTGACGGG	GAGACCCACA	1500
CGACGGGGAG	GGTGGCCGGC	CACACCACCT	CCGGGTTCAC	GTCCCTTTTC	1550
TCATCTGGGG	CGTCTCAGAA	AATCCAGCTT	GTGAATACCA	ACGGCAGCTG	1600
GCACATCAAC	AGGACTGCCC	TAAATTGCAA	TGACTCCCTC	CAAACCTGGT	1650
TCTTTGCCCG	GCTGTTTTC	GCACACAAGT	TCAACTCGTC	CGGGTGCCCC	1700
GAGCGCATGG	CCAGCTGCCG	CCCCATTGAC	TGGTTCGCCC	AGGGGTGGGG	1750
CCCCATCACC	TATACTAAGC	CTAACAGCTC	GGATCAGAGG	CCTTATTGCT	1800
GGCATTACGC	GCTCGACCG	TGTGGTGTGC	TACCCGCGTC	GCAGGTGTGT	1850
GGTCCAGTGT	ATGTGTTTAC	CCCAAGCCCT	GTTGTGGTGG	GGACCAACGA	1900

FIG. 4A

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TCGTTCCGGT	GTCCCTACGT	ATAGCTGGGG	GGAGAATGAG	ACAGACGTGA	1950
TGCTCCTCAA	CAACACCGGT	CCGCCACAAG	GCAACTGGTT	CGGCTGTACA	2000
TGGATGAATA	GTACTGGGTT	CACTAAGACG	TGCCGAGGTC	CCCCGTGTAA	2050
CATCGGGGGG	GTCCGTAAAC	GCACCTTGAT	CTGCCCCACG	GACTGCTTCC	2100
GGAAGCACCC	CGAGGCTACT	TACACAAAAT	GTGGCTGGGG	GCCCTGGTTG	2150
ACACCTAGGT	GCCTAGTAGA	CTACCCATAC	AGGCTTTGGC	ACTACCCCTG	2200
CACTCTCAAT	TTTTCCATCT	TTAAGGTTAG	GATGTATGTG	GGGGGCGTGG	2250
AGCACAGGCT	CAATGCCGCA	TGCAATTGGA	CTCGAGGAGA	GCGCTGTAAAC	2300
TTGGAGGACA	GGGATAGGTC	AGAACTCAGC	CCGCTGCTGC	TGCTTACAAC	2350
AGAGTGGCAG	ATACTGCCCT	GTGCTTTTAC	CACCTTACCG	GCTTTATCCA	2400
CTGGTTTGAT	CCATCTCCAT	CAGAACATCG	TGGACGTGCA	ATACTGTIAC	2450
GGTGTAGGGT	CAGCGTTTGT	CTCCTTTGCA	ATCAAATGGG	AGTACATCCT	2500
GTTCCTTTTC	CTTCTCCTGG	CAGACGGCGG	CGTGTGTGGC	TGCTTGTGGA	2550
TGATGCTGCT	GATAGCCACG	GCTGAGGCCG	CCTTAGAGAA	CTTGGTGGTC	2600
CTCAATGCCG	CGTCCGTGGC	CGGAGCGCAT	GGTATTCTCT	CCTTTCTTGT	2650
GTTCCTCTGC	GCCGCTGGT	ACATTAAGGG	CAGGCTGGCT	CCGCGGGCGG	2700
CGTATGCTTT	TTATGGCGTA	TGGCCGCTGC	TCCTGCTCCT	ACTGGCGTAA	2750
CCACCACGAG	CTTACGCCTT	GGACCGGGAG	ATGGCTGCAT	CGTGCGGGGG	2800
TGCGGTTCTT	GTAGGTCTGG	TATTCTTGAC	CTTGTCACCA	TACTACAAAG	2850
TGTTTCTCAC	TAGGCTCATA	TGGTGGTTAC	AATACTTTAT	CACCAGAGCC	2900
GAGGCGCACA	TGCAAGTGTG	GGTCCCCCCC	CTCAACGTTT	GGGGAGGCCG	2950
CGATGCCATC	ATCCTCCTCA	CGTGTGCGGT	TCATCCAGAG	TTAATTTTGT	3000
ACATCACCAA	ACTCCTGCTC	GCCATACTCG	GCCCGCTCAT	GGTGCTCCAG	3050
GCTGGCATAA	CGAGAGTGCC	GTACTTTCGTG	CGCGCTCAAG	GGCTCATTCG	3100
TGCATGCATG	TTAGTGGGAA	AAGTCCCGCG	GGGTCATTAT	GTCCAAATGG	3150
TCTTCATGAA	GCTGGGCGCG	CTGACAGGTA	CGTACGTTTA	TAACCATCTT	3200
ACCCCACTGC	GGGACTGGGC	CCACGCGGGC	CTACGAGACC	TTGOGGTGGC	3250
GGTAGAGCCC	GTGCTCTTCT	CCGCCATGGA	GACCAAGGTC	ATCACCTGGG	3300
GAGCAGACAC	CGCTGCGTGT	GGGGACATCA	TCTTGGGICT	ACCCGTCTCC	3350
GCCCGAAGGG	GGAAAGGAGAT	ATTTTGTGGG	CCGGCTGATA	GTCTCGAAGG	3400
GCAAGGGTGG	CGACTCCTTG	CGCCCATCAC	GGCCTACTCC	CAACAAACGC	3450
GGGGCGTACT	TGGTTGCATC	ATCACTAGCC	TCACAGGCCG	GGACAAGAAC	3500
CAGGTGGAAG	GGGAGGTTCA	AGTGGTTTCT	ACCGCAACAC	AATCTTTCTT	3550
GGCGACCTGC	ATCAACGGCG	TGTGCTGGAC	TGCTTACCAT	GGCGCTGGCT	3600
CGAAGACCCCT	AGCCGGTCCA	AAAGGTCCAA	TCACCCAAAT	GTACACCAAT	3650
GTAGACCTGG	ACCTCGTCCG	CTGGCAGGCG	CCCCCGGGGG	CGCGCTCCAT	3700
GACACCATGC	AGCTGTGGCA	GCTCGGACCT	TTACTTGGTC	ACGAGACATG	3750
CTGATGTICAT	TCCGGTGGCG	CGGCGAGGCG	ACAGCAGGGG	AAGTCTACTC	3800

FIG. 4B
SUBSTITUTE SHEET (RULE26)

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TCCCCCAGGC	CCGTCTCCTA	CCTGAAAGGC	TCCTCGGGTG	GTCCATTGCT	3850
TTGCOOCTTG	GGGCAGGTG	TGGGCGTCTT	CCGGGCTGCT	GTGTGCACCC	3900
GGGGGGTGGC	GAAGGCGGTG	GACTTCATAC	CCGTTGAGTC	TATGGAAACT	3950
ACCATGCGGT	CTCCGGTCTT	CACAGACAAC	TCAACCCCCC	CGGCTGTACC	4000
GCAGACATTC	CAAGTGGCAC	ATCTGCACGC	TCCTACTGGC	AGCGGCAAGA	4050
GCACCAAGT	GCCGGCTGGG	TATGCAGCC	AAGGGTACAA	GGTGCTGGTC	4100
CTGAACCCGT	CCGTTGCGGC	CAOCTTAGGG	TTTGGGGGGT	ATATGTCCAA	4150
GGCACACGGT	ATCGACCCTA	ACATCAGAAC	TGGGGTAAGG	ACCATTAACA	4200
CGGGCGGCTC	CATTACGTAC	TCCACCTATG	GCAAGTTCTT	TGCOGACGGT	4250
GGCTGTCTTG	GGGGCGCCCTA	TGACATCATA	ATATGTGATG	AGTGCCACTC	4300
AACTGACTCG	ACTACCATCT	TGGGCATCGG	CACAGTCTTG	GACCAAGCGG	4350
AGACGGCTGG	AGCGCGGCTC	GTCGTGCTCG	CCACCGCTAC	ACCTCCGGGA	4400
TGGGTIACCG	TGCCACACCC	CAATATCGAG	GAAATAGGCC	TGTCCAACAA	4450
TGGAGAGATC	CCCTTCTATG	GCAAAGOCAT	CCCATTTGAG	GCCATCAAGG	4500
GGGGGAGGCA	TCTCATTTTC	TGCCATTCCA	AGAAGAAATG	TGACGAGCTC	4550
GCCGCAAGC	TGACAGGCCT	CGGACTGAAC	GCTGTAGCAT	ATTACCGGGG	4600
CCTTGATGTG	TCCGTTCATAC	CGCCTATCGG	AGACGTGCTT	GTGTTGCCAA	4650
CAGACGCTCT	AATGACGGGT	TTACCCGGCG	ATTTTGACTC	AGTGATCGAC	4700
TGCAATACAT	GTGTACCCCA	GACAGTCGAC	TTCAGCTTGG	ATCCCACTTT	4750
CACCATTTGAG	ACGACGACCG	TGCCCCAAGA	CGCGGTGTGG	CGCTCGCAAC	4800
GGCGAGGTAG	AACTGGCAGG	GGTAGGAGTG	GCATCTACAG	GTTTGTGACT	4850
CCAGGAGAAC	GGCCCTCGGG	CATGTTGCGT	TCTTCGGTCC	TGTGTGAGTG	4900
CTATGACGGG	GGCTGTGCTT	GGTATGAGCT	CACGCCCGCT	GAGACCTCGG	4950
TTAGGTTGCG	GGCTTACCTA	AATACACCAG	GGTTGCCCGT	CTGCCAGGAC	5000
CATCTGGAGT	TCTGGGAGAG	CGTCTTCACA	GGCCTCACCC	ACATAGATGC	5050
CCACTTCCTG	TCCCAGACTA	AACAGGCAGG	AGACAACCTT	CCTTACCTGG	5100
TGGCATATCA	AGCTACAGTG	TGCGCCAGGG	CTCAAGCTCC	ACCTCCATCG	5150
TGGGACCAAA	TGTGGAAGTG	TCTCATACGG	CTGAAACCTA	CACTGCACGG	5200
GCCAACACCC	CTGCTGTATA	GGCTAGGAGC	CGTCCAAAAT	GAGGTACATC	5250
TCACACACCC	CATAACTAAA	TACATCATGG	CATGCATGTC	GGCTGACCTG	5300
GAGGTGCTCA	CTAGCACCTG	GGTGCTGGTA	GGCGGAGTCC	TTGCAGCTTT	5350
GGCCGCATAC	TGCCTGACGA	CAGGCAGTGT	GGTCATTGTG	GGCAGGATCA	5400
TCTTGTCGGG	GAAGCCAGCT	GTCGTTCCCG	ACAGGGAAGT	CCCTTACCAG	5450
GAGTTCGATG	AGATGGAAGA	GTGTGCCTCA	CAACTTCCTT	ACATCGAGCA	5500
GGGAATGCAG	CTCGCCGAGC	AATTCAAGCA	AAAGGCGCTC	GGGTTGTTGC	5550
AAACGGCCAC	CAAGCAAGCG	GAGGCTGCTG	CTCCCGTGGT	GGAGTCCAAG	5600
TGGCGAGCCC	TTGAGACCTT	CTGGGCGAAG	CACATGTGGA	ATTTTCATCAG	5650
CGGAATACAG	TACCTAGCAG	GCTTATCCAC	TCTGCCTGGA	AACCCCGCGA	5700

FIG. 4C

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TAGCATCATT	GATGGCATT	ACAGCTTCTA	TCACTAGCCC	GCTCACCACC	5750
CAAAACACCC	TCCTGTTTAA	CATCTTGGGG	GGATGGGTGG	CTGCCCCACT	5800
CGCTCCTCCC	AGCGCTGCGT	CAGCTTTTGT	GGCGCGCGGC	ATCGCCGGAG	5850
CGGCTGTTGG	CAGCATAGGC	CTTGGGAAGG	TGCTCGTGGG	CATCTTGGCG	5900
GGCTATGGGG	CAGGGGTAGC	CGGCGCACTC	GTTGGCTTTA	AGGTCATGAG	5950
CGGCGAGGTG	CCCTCCACCG	AGGAOCTGGT	CAACTTACTC	OCTGOCATCC	6000
TCTCTCCTGG	TGCCCCGTGC	GTCGGGGTGG	TGTGCGCAGC	AATACTGGGT	6050
CGGCAOGTGG	GCCCCGGAGA	GGGGGCTGTG	CAGTGGATGA	ACCGGCTGAT	6100
AGOGTTGGCT	TGCGGGGGTA	ACCACGTCTC	CCCTACGCAC	TATGTGCGTG	6150
AGAGOGAOCG	TGCAGCACGT	GTCACTCAGA	TCTCTCTTAG	OCTTAOCATC	6200
ACTCAACTGC	TGAAGCGGCT	CCACCAGTGG	ATTAATGAGG	ACTGCTCTAC	6250
GCCATGCTCC	GGCTCGTGGC	TAAGGGATGT	TTGGGATTGG	ATATGCAOCC	6300
TGTTGACTGA	CTTCAAGACC	TGGCTCCAGT	CCAAACTCCT	GCCGCGGTAA	6350
CCGGGAGTCC	CTTTCCTGTC	ATGCCAACGC	GGTACAAAGG	GAGTCTGGCG	6400
GGGGGACGGC	ATCATGCAAA	CCACCTGCCC	ATGCGGAGCA	CAGATCGCCG	6450
GACATGTCAA	AAACGGTTCC	ATGAGGATCG	TAGGGCCTAG	AACCTGCAGC	6500
AACACGTGGC	ACGGAACGTT	CCCCATCAAC	GCATACACCA	CGGGACCTTG	6550
CACACCCTCC	CCGGCGCCCA	ACTATTCCAG	GGCGCTATGG	CGGGTGGCTG	6600
CTGAGGAGTA	CGTGGAGGTT	ACGCGTGTGG	GGGATTTCCA	CTACGTGACG	6650
GGCATGACCA	CTGACAACGT	AAAGTGCCCC	TGCCAGGTTC	CGGCCCCCGA	6700
ATTCTTCACG	GAGGTGGATG	GAGTGGCGTT	GCACAGGTAC	GCTCCGGCGT	6750
GCAAACCTCT	TCTACGGGAG	GACGTCACGT	TCCAGGTCCG	GCTCAACCAA	6800
TACTTGGTCG	GGTCGCAGCT	CCCATGCGAG	CCCGAACCGG	ACGTAAACAGT	6850
GCTTACTTCC	ATGCTCACC	ATCCCTCCCA	CATTACAGCA	GAGACGGCTA	6900
AGCGTAGGCT	GGCTAGAGGG	TCTCCCCCCT	CTTTAGCCAG	CTCATCAGCT	6950
AGCCAGTTGT	CTGCGCCTTC	TTTGAAGGCG	ACATGCACTA	CCCAOCATGA	7000
CTCCCCGGAC	GCTGACCTCA	TGAGGGCCAA	CTCTTTGTGG	CGGCAGGAGA	7050
TGGGCGGAAA	CATCACTCCG	GTGGAGTCAG	AGAATAAGGT	AGTAATTCTG	7100
GACTCTTTTC	AAACCGCTTCA	CGCGGAGGGG	GATGAGAGGG	AGATATCCGT	7150
CGCGGCGGAG	ATCCTGCGAA	AATCCAGGAA	GTTCCTCTCA	GCGTTGCCCA	7200
TATGGGCACG	CCCGGACTAC	AATCCTCCAC	TGCTAGAGTC	CTGGAAGGAC	7250
CCGGACTACG	TCCCTCCGGT	GGTACACGGA	TGCCCATTGC	CACCTACCAA	7300
GGCTCCTCCA	ATACCACCTC	CACGGAGAAA	GAGGACGGTT	GTCCTGACAG	7350
AATCCAATGT	GTCTTCTGCC	TTGGCGGAGC	TGCGCACTAA	GACCTTCGGT	7400
AGCTCCGGAT	CGTCGGCCGT	TGATAGCGGC	ACGGCGACCG	CCCTTCCTGA	7450
CCTGGCCTCC	GACGACGGTG	ACAAAGGATC	CGACGTTGAG	TGTTACTOCT	7500
CCATGCCCCC	CCTTGAAGGG	GAGCGCGGGG	ACCCCGATCT	CAGCGACGGG	7550
TCTTGGTCTA	CCGTGAGTGA	GGAGGCTAGT	GAGGATGTGG	TCTGCTGCTC	7600

FIG. 4D
SUBSTITUTE SHEET (RULE26)

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
AATGTCCTAT	ACGTGGACAG	GCGCCCTGAT	CACGCCATGC	GCTGCGGAGG	7650
AAAGTAAGCT	GCCCATCAAC	COGTTGAGCA	ACTCTTTGCT	GCGTCAACCAC	7700
AACATGGTCT	ACGCCACAAC	ATCCCGCAGC	GCAAGCCTCC	GGCAGAAGAA	7750
GGTCACCTTT	GACAGATTGC	AAGTCCTGGA	TGATCATTAC	CGGGACGTAC	7800
TCAAGGAGAT	GAAGCGGAAG	GCGTCCACAG	TTAAGGCTAA	GCTTCTATCT	7850
ATAGAGGAGG	CCTGCAAGCT	GACGCCCCCA	CATTGGGCCA	AATCCAAATT	7900
TGGCTATGGG	GCAAAGGACG	TCCGGAACCT	ATCCAGCAGG	GCGTTAAACC	7950
ACATCCGCTC	CGTGTGGGAG	GACTTGCTGG	AAGACACTGA	AACACCAATT	8000
GACACCACCA	TCATGGCAAA	AAGTGAGGTT	TTCTGCGTCC	AACCAGAGAA	8050
GGGAGGCCGC	AAGCCAGCTC	GCCTTATCGT	ATTCCCAGAC	CTGGGAGTTC	8100
GTGTATGCCA	GAAGATGGCC	CTTTACGACG	TGGTCTCCAC	CCTTCTCTAG	8150
GCCGTGATGG	GCTCCTCATA	CGGATTTCAA	TACTCCCCCA	AGCAGCGGGT	8200
CGAGTTCCTG	GTGAATACTT	GGAAATCAAA	GAAATGCOCT	ATGGGCTTCT	8250
CATATGACAC	CCGCTGTTTT	GACTCAACGG	TCACTGAGAG	TGACATTCTG	8300
GTGAGGAGT	CAATTTACCA	ATGTTGTGAC	TGGCCCCCGG	AGGCCAGACA	8350
GGCCATAAGG	TGCTTCACAG	AGCGGCTTTA	CATCGGGGGT	CCCCTGACTA	8400
ACTCAAAGG	GCAGAACTGC	GGTTATCGCC	GGTGCCGCGC	AAGTGGCGTG	8450
CTGACGACTA	GCTGCGGTAA	TACCTTCACA	TGTTACTTGA	AGGCCACTGC	8500
AGCCTGTGGA	GCTGCAAAGC	TCCAGGACTG	CACGATGCTC	GTGAACGGAG	8550
ACGACCTTGT	CGTTATCTGT	GAAAGCGCGG	GAACCCAGGA	GGATGCGGCG	8600
GCCCTACGAG	CCTTCACGGA	GGCTATGACT	AGGTATTCCG	CCCCCCCCCG	8650
GGATCCGCCC	CAACCAGAAT	ACGACCTGGA	GCTGATAACA	TCATGTTTCT	8700
CCAATGTGTC	AGTCGCGCAC	GATGCATCTG	GCAAAGGGT	ATACTACCTC	8750
ACCCGTGACC	CCACCACCCC	CCTTGACCGG	GCTGCGTGGG	AGACAGCTAG	8800
ACACACTCCA	ATCAACTCTT	GGCTAGGCAA	TATCATCATG	TATGCGCCCA	8850
CCCTATGGGC	AAGGATGATT	CTGATGACTC	ACTTTTCTCT	CATCCTTCTA	8900
GCTCAAGAGC	AACTTGAAAA	AGCCCTGGAT	TGTCAGATCT	ACGGGGCTTG	8950
CTACTCCATT	GAGCCACTTG	ACCTACCTCA	GATCATTGAA	CGACTCCATG	9000
GTCTTAGCGC	ATTACACTTC	CACAGTTACT	CTCCAGGTGA	GATCAATAGG	9050
GTGGCTTCAT	GCCTCAGGAA	ACTTGGGGTA	CCACCCCTGC	GAACCTGGAG	9100
ACATCGGGCC	AGAAGTGTCC	GCGCTAAGCT	ACTGTCCCAG	GGGGGGAGGG	9150
CCGCCACTTG	TGGCAGATAC	CTCTTTAACT	GGGCAGTAAG	GACCAAGCTT	9200
AAACTCACTC	CAATCCCGGC	CGCGTCCCAG	CTGGACTTGT	CTGGCTGGTT	9250
CGTCGCTGGT	TACAGCGGGG	GAGACATATA	TCACAGCCTG	TCTCGTGCCC	9300
GACCCCGCTG	GTTTCCGTTG	TGCCTACTCC	TACTTTCTGT	AGGGGTAGGC	9350
ATTTACCTGC	TCCCCAACCG	ATGAACGGGG	AGCTAACCAC	TCCAGGCCTT	9400
AAGCCATTTC	CTGTTTTTTT	TTTTTTTTTT	TTTTTTTTTT	TCTTTTTTTT	9450
TTTCTTCTCT	TTCTTCTTTT	TTTCTCTTTC	TTTTTCCCTT	CTTTAATGGT	9500

FIG. 4E

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GGCTCCATCT	TAGCCCTAGT	CACGGCTAGC	TGTGAAAGGT	COGTGAGCOG	9550
CATGACTGCA	GAGAGTGCTG	ATACTGGCCT	CTCTGCAGAT	CATGT	9595

FIG. 4F

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
MSINPKPQRK	TKRNINRRPQ	DVKFPGGGQI	VGGVYLLPRR	GPRLGVRATR	50
KASERSQPRG	RRQPIPKARR	PEGRAWAQPG	YFWPLYGNEG	LGWAGWLLSP	100
RGSRPSWGPT	DPRRRSRNLG	KVIDTLTCGF	ADLMGYIPLV	GAPLGGAARA	150
LAHGVRVLED	GVNYATGNLP	GCSFSIFLLA	LLSCLTIPAS	AYEVRNVSGI	200
YHVINDCSNS	SIVYEAADVI	MHTPGCVPCV	QEGNSSROW	ALTPTLAARN	250
ASVPTTTIRR	HVDLLVGTA	FCSAMYVGL	CGSIFLVSQ	FTFSPPRHET	300
VQDNCSTYP	GHSVSGHMAW	DMMNWSPTT	ALVVSQLLRI	PQAVVDMVAG	350
AHWGVLAGLA	YYSMGNWAK	VLIVALLFAG	VDGETHTTGR	VAGHTTSGFT	400
SLFSSGASQK	IQLVNTINGSW	HINRIALN	DSLQIGFFAA	LFYAHKFNSS	450
GCPERMASCR	PIDWFAQGW	PITYTKFNSS	DQRPYCWHA	PRPOGVVPAS	500
QVCGPVYCF	PSFVVVGTTD	RSQVPTYSWG	ENETDMLLN	NIRPPQGNWF	550
GCTWMNSTGF	TKTCGGPPCN	IGGVGNRTLI	CPIDCFRHP	EATYTKCGSG	600
PWLTPRCLVD	YPYRLWHYPC	TLNFSIFKVR	MYVGGVEHRL	NAACNWIRGE	650
RCNLEDRLRS	ELSPLLLSTT	EWQILPCAFT	TLPALSTGLI	HLHQNTVDVQ	700
YLYGVGSAFV	SFAIKWEYIL	LLFLLLADAR	VCACLWMLL	IAQAEAALEN	750
LVLNAASVA	GAHGILSFLV	FFCAAWYIKG	RLAPGAAYAF	YGVWPLLLLL	800
LALPPRAYAL	DREMAASCGG	AVLVGLVFLT	LSPYYKVFLT	RLIWWLQYFT	850
TRAEAHMQW	VPPLNVRGGR	DAIILLTCAV	HPELTFDITK	LLLAILGLPM	900
VLQAGITRVP	YFVRAQGLIR	ACMLVRKVAG	GHYVQMVFMK	LGALTGTIVY	950
NHLTPLRLWA	HAGLRDLAVA	VEPVVFSAME	TKVITWGADT	AACGDIILGL	1000
PVSARRGKEI	FLGPADSLEG	QGWRLAPIT	AYSQQTRGVL	GCIITSLTGR	1050
DKNQVEGEVQ	WSTATQSFL	ATCINGVOWT	VYHAGSKTIL	AGPKGPITQM	1100
YTNVDLVLVG	WQAPPGARSM	TPCSCGSSDL	YLVIRHADVI	PVRRRGDSRG	1150
SLSPRPVSY	LKGSSGGPLL	CPSGHVGVF	RAAVCTRGVA	KAVDFIPVES	1200
METIMRSPVF	TINSTPPAVP	QTFQVAHLHA	PTGSGKSTKV	PAAYAAQGYK	1250
VLVLNPSVAA	TLGFGAYMSK	AHGIDPNIRT	GVRTTTTGG	TTYSTYKFL	1300
ADGGCSGGAY	DIICDECHS	TDSTTILGIG	TVLDQAETAG	ARLVVLATAT	1350
PPGSVIVPHP	NIEEIGLSNN	GETPFYKAI	PTEAIKGRH	LIFCHSKKCC	1400
DELAACKLTGL	GLNAVAYYRG	LDSVIPPPIG	DVVVATDAL	MTGFTGDFDS	1450
VIDQNTCVIQ	TVDFSLDPTF	TIEITTVPOD	AVSRSQRRGR	TGRGRSGIYR	1500
FVTPGERPSG	MFDSVLCCEC	YDAGCAWYEL	TPAETSVRLR	AYLNTFGLPV	1550
CQDHLEFWES	VFTGLIHIDA	HFLSQTKQAG	DNFPYLVAYQ	ATVCARAQAP	1600
PPSWDQMWKC	LIRLKPILHG	PTPLLYRLGA	VQNEVILTHP	ITKYIMACMS	1650
ADLEVVTSTW	VLVGGVLAAL	AAYCLTTGVS	VTVGRILSG	KPAVVPDREV	1700
LYQEFDEMEE	CASQLPYIEQ	GMQLAEQFKQ	KALGLLQAT	KQAEAAAPVV	1750
ESKWRALETF	WAKHMANFIS	GIQYLAGLST	LPGNPAIASL	MAFTASITSP	1800
LTQNTLLFN	ILGGWAAQL	APPSAASAFV	GAGIAGAAGV	SIGLGKVLVD	1850
ILAGYGAGVA	GALVAFKMS	GEVPSTEDLV	NLLPAILSPG	ALVGVVCAA	1900

FIG. 4G

SUBSTITUTE SHEET (RULE26)

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
ILRRHVGPGE	GAVQWMNRLI	AFASRGNHVS	PIHYVPESDA	AARVTQILSS	1950
LTTTQLLKRL	HQWINEDCST	PCSGSWLRDV	WDWICTVLTD	FKTWLQSKLL	2000
PRLPGVPFLS	CQRGYKGWR	GDGIMQITCP	CGAQIAGHVK	NGSMRIVGPR	2050
TCSNIWHGTF	PINAYTTGPC	TPSPAIFYSR	ALWRVAAEEY	VEVIRVGDFH	2100
YVTGMTIDNW	KCPCQVPAPE	FFTEVDGVRL	HRYPACKPL	LREDVTFQVG	2150
LNQYLVGSQL	PCEPEPDVIV	LTSMLTDPST	TTAETAKRRL	ARGSPPSLAS	2200
SSASQLSAPS	LKATCTIHHD	SPDADLIEAN	LLWRQEMGGN	IIRVESENKV	2250
VILDSFEPLH	AEGDEREISV	AAEILRKSRK	FPSALPIWAR	PDYNPPLLES	2300
WKDPDYVPPV	VHGCPLPPTK	APPPIPPRRK	RIVVLITESV	SSALAEIATK	2350
TFGSSGSSAV	DSGTATAPD	LASDDGKGS	DVESYSSMPP	LEGERGDPDL	2400
SDGSWSTVSE	EASEDVCCS	MSYTWIGALI	TPCAAEEESKL	PINPLSNSLL	2450
RHHNMVYATT	SRSASLRQKK	VTFDRLQVLD	DHYRDVLKEM	KAKASTVKAK	2500
LLSTEEACKL	TPPHSAKSKF	GYGAKDVRNL	SSRAVNHRS	VWEDLLEDTE	2550
TPIDTTIMAK	SEVFCVQPEK	GGRKPARLIV	FPDLGVRVCE	KMALYDVVST	2600
LPQAVMGSSY	GFQYSPKQRV	EFLVNIWWSK	KCPMGFSYDT	RCFDSTVIES	2650
DIRVEESTYQ	CCDLAPEARQ	AIRSLTERLY	IGGPLINSKG	QNGYRRRCRA	2700
SGVLTTSCGN	TLTCYLKATA	ACRAAKLQDC	TMLVNGDDL	VICESAGIQE	2750
DAAALRAFTE	AMIRYSAPPG	DPPQPEYDLE	LITSCSSNVS	VAHDASGKRV	2800
YYLTRDPTTP	LARAWEIAR	HTPINSWLGN	IIMYAPTLWA	RMILMIHFFS	2850
ILLAQBQLEK	ALDCQTYGAC	YSIEPLDLPO	IIRLHGLSA	FTLHSYSFGE	2900
INRVASCLRK	LGVPPLRTWR	HRARSVRACL	LSQGGRAATC	GRYLFNWAVR	2950
TKLKLTPIPA	ASQLDLGWF	VAGYSGGDIY	HSLSRARPRW	FPLCLLLLSV	3000
GVTYLLNRR					3010

FIG. 4H

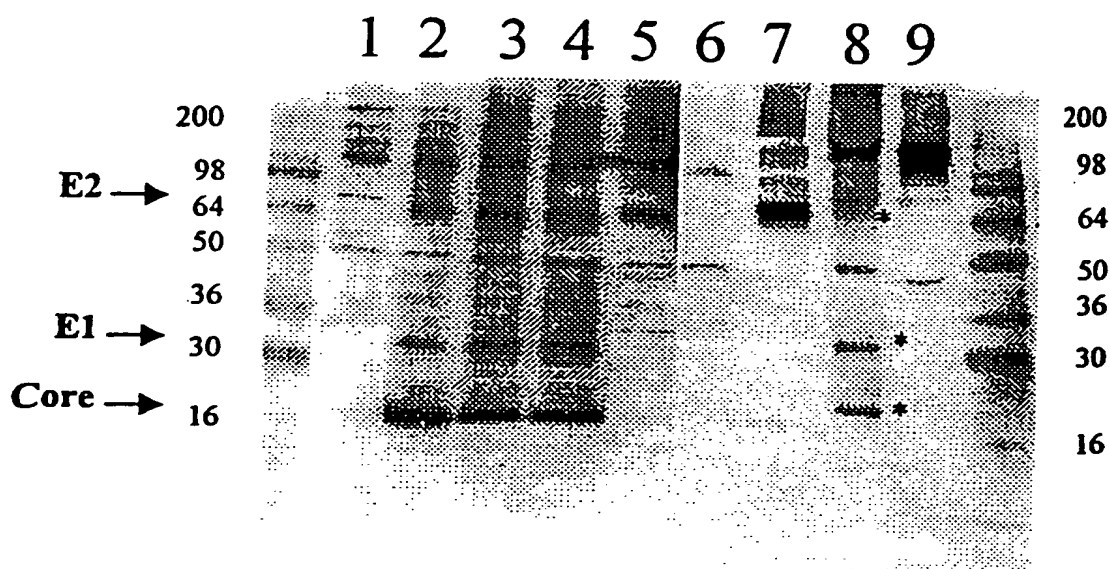


FIG. 5